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Kelly P. Fitzgerald Shumaker & Sieffert, P.A. Suite 300 1625 Radio Drive Woodbury, MN 55125			NGUYEN, TANH Q	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YUNG YIP, GREGORY A. LASKA, JASON D. HANZLIK, and
LEO W. SPYCHALLA

Appeal 2009-005851
Application 10/822,884
Technology Center 2100

Decided: November 18, 2009

Before HOWARD B. BLANKENSHIP, JEAN R. HOMERE, and
STEPHEN C. SIU, *Administrative Patent Judges*.

SIU, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

This is a decision on appeal under 35 U.S.C. § 134(a) from the
Examiner's rejection of claims 1-8 and 16-20. Claims 9-15 are cancelled.
We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Invention

The invention relates to data cartridges including a housing having a surface resistivity in a range of approximately 10^6 ohms/square to approximately 10^{12} ohms/square (Spec. 3). Such housings can include a static dissipative polymer (Spec. 4).

Independent claim 1 is illustrative:

1. A data cartridge, comprising:

a housing having a surface resistivity in a range of approximately 10^6 ohms/square to approximately 10^{12} ohms/square, wherein the housing is adapted to dissipate a static charge of the data cartridge;

a non-tape storage medium contained within the housing;

circuitry contained within the housing for accessing the non-tape storage medium; and

an externally accessible electrical connector supported by the housing and electrically coupled to the circuitry.

References

The Examiner relies upon the following references as evidence in support of the rejection:

Albrecht	US 2002/0159182 A1	Oct. 31, 2002
Waggoner	US 2004/0113129 A1	Jun. 17, 2004

LNP Engineering Plastics, Inc., *Stat-Kon: A Guide to LNP's Line of Thermoplastic Composites for Electrostatic Dissipation*, Bulletin 223-5.01-2.5, pp. 1-12 (2001) ("STAT").

Rejection

Claims 1-8 and 16-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Albrecht, Waggoner, and STAT.

ISSUE 1

Appellants argue that “forming the cartridge shell of the data storage cartridge of the Albretch [sic] reference of a static dissipative material would not have been obvious . . . [because] the Albretch [sic] reference already includes an electrostatic discharge path” (App. Br. 7). They argue that the combination of Albrecht, Waggoner, and STAT “would change the principle of operation of the data storage cartridge in that backing plate 70 and land 85 of flex cable 65 would be of no use” (*id.* (emphasis added)). They also argue that Albrecht “teaches away from forming the cartridge shell of a static dissipative material” (App. Br. 8) because the inventors of the Albrecht reference were “full aware of the Stat-Kon line of materials [but] chose not to form the cartridge shell of [a static dissipative] material” (*id.*).

Issue: Did Appellants demonstrate that the Examiner erred in finding that it would have been obvious to one of ordinary skill in the art to combine the Albrecht, Waggoner, and STAT references?

ISSUE 2

Appellants submit “that all claim limitations . . . including ‘wherein the housing is adapted to dissipate a static charge of the data cartridge,’ must be given patentable weight” (Reply Br. 3).

Issue: Did Appellants demonstrate that the Examiner erred in finding that the combination of the Albrecht, Waggoner, and STAT references teaches or suggests a housing adapted to dissipate a static charge of a data cartridge?

FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

1. Albrecht teaches “a portable data storage cartridge 40 [that] contains an encased, self-contained and operational, magnetic data storage drive 60 . . . fit within the cartridge shell 41” (¶ [0051]).
2. Albrecht references cartridge shell 41 multiple times, but does not teach what material cartridge shell 41 should comprise, nor does Albrecht specify a requisite surface resistivity for such material (¶¶ [0047, 0049, 0051, 0053, 0054, 0056, 0069]).
3. Albrecht teaches a backing plate [that] is electrically coupled to the data storage device by means of land 85 of flex cable 65, to a ground thereof, thereby forming an electrostatic discharge path from the data storage device to the backing plate and through the electrically semiconductive material to the alignment pins of the transfer station, which are electrically grounded.
(¶ [0066]).

4. STAT teaches that “[t]he consequences of discharge through an electrical component sensitive to ESD [electrostatic discharge] can range from erroneous readings to permanent damage” (p. 3).
5. STAT teaches that composites with surface resistivity in the range of 10^6 - 10^9 ohms/square can insulate against high leakage currents (pp. 3-4). Composites with surface resistivity in the range of 10^9 - 10^{12} ohms/square can insulate against moderate to high leakage currents (*id.*). STAT teaches that some of these composites have “been especially important in the areas of molded packaging . . . to ensure minimum failure and loss of sensitive electronic components” (p. 8).
6. Waggoner teaches “[s]tatic dissipative compositions . . . useful for housings . . . for shielding electronic equipment and components” (Abstract). Surface resistivity for these compositions can range from “about 10^9 to about 10^{12} ohms/square” (claim 10).

PRINCIPLES OF LAW

Claim construction

A “wherein” clause that merely states the result of claim limitations adds nothing to the patentability or substance of the claim. *Cf. Texas Instruments Inc. v. U.S. Int'l Trade Comm'n*, 988 F.2d 1165, 1172 (Fed. Cir. 1993).

Obviousness

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). Additionally, the proposed modification or combination of the prior art should not change the principle of operation of the prior art invention being modified. *In re Ratti*, 270 F.2d 810 (CCPA 1959). A suggested combination should not “require a substantial reconstruction and redesign of the elements shown in [the prior art].” *Id.* at 813.

ANALYSIS

Issue I

Based on Appellants' arguments in the Appeal Brief, we will decide the appeal with respect to issue 1 on the basis of claim 1 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Albrecht teaches a data storage cartridge that includes a cartridge shell and non-tape storage (FF 1). The data storage cartridge can also have a backing plate that is electrically coupled to the data storage device by means of land 85 of flex cable 65 (FF 3). This provides an electrostatic discharge path from the data storage device to the backing plate, electrically semiconductive materials, and grounded alignment pins (FF 3). From these teachings, an artisan of ordinary skill would have known that electrostatic discharge is a problem that must be managed. An artisan of ordinary skill would also have known that a data storage cartridge needs a housing (i.e., cartridge shell) (FF 1).

What Albrecht does not teach is what materials are best suited for the data cartridge housing (FF 2). Thus, an artisan of ordinary skill would seek out teachings in the prior art to find appropriate housing materials.

Similar to Albrecht, STAT teaches that static discharge is a problem for electrical components (FF 4). STAT teaches composites having surface resistivities in the range of 10^6 to 10^{12} , some of which have been used for molded packaging (FF 5). Waggoner also teaches static dissipative compositions useful for housings for shielding electronic equipment and components (FF 6).

Albrecht does not specify the material for the data cartridge housing, while both STAT and Waggoner teach static dissipative electronic component housing materials. Therefore, an artisan of ordinary skill, possessing creativity and common sense, would have found it obvious to combine the teachings of the Albrecht, STAT, and Waggoner references (i.e., using a static dissipative composition for a data cartridge housing).

Using a static dissipative composition for a data cartridge housing does not change the principle of operation of Albrecht. The backing plate 70 and land 85 of flex cable 65 would still provide a grounded path for electrostatic discharge when connected to a transfer station (FF 3). A static dissipative housing would provide additional protection from electrostatic discharge, especially when the data cartridge is not connected to a transfer station. Moreover, substantial reconstruction and redesign of the backing plate 70 and land 85 of flex cable 65 would be unnecessary for the proposed modification. *See In re Ratti*, 270 F.2d at 813.

Albrecht does not teach away from use of static dissipative compositions for a data cartridge housings. Albrecht is silent as to what data cartridge housing materials should be used (FF 2). Thus, an artisan of ordinary skill would not be discouraged or led away from using static dissipative compositions. *See In re Gurley*, 27 F.3d at 553.

For at least these reasons, we find that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner's 35 U.S.C. § 103(a) rejections of claims 1-8 and 16-20 with respect to this issue.

Issue 2

Based on Appellants' arguments in the Appeal Brief, we will decide the appeal with respect to issue 2 on the basis of claim 1 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).

The clause "wherein the housing is adapted to dissipate a static charge of the data cartridge" merely states the result of using static dissipative materials for a data cartridge housing. This adds nothing to the patentability or substance of the claim. *Cf. Texas Instruments Inc. v. U.S. Int'l Trade Comm'n*, 988 F.2d at 1172. Appellants have offered no evidence or arguments to show that the combination of the Albrecht, STAT, and Waggoner references would not have this result.

For at least these reasons, we find that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner's 35 U.S.C. § 103(a) rejections of claims 1-8 and 16-20 with respect to this issue.

CONCLUSIONS OF LAW

Based on the findings of facts and analysis above, we conclude that Appellants have not demonstrated:

1. that the Examiner erred in finding that it would have been obvious to one of ordinary skill in the art to combine the Albrecht, Waggoner, and STAT references (Issue 1) and

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2. that the Examiner erred in finding that the combination of the Albrecht, Waggoner, and STAT references teaches or suggests a housing adapted to dissipate a static charge of a data cartridge (Issue 2).

DECISION

We affirm the Examiner's decisions rejecting claims 1-8 and 16-20 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

msc

Kelly P. Fitzgerald
Shumaker & Sieffert, P.A.
Suite 300
1625 Radio Drive
Woodbury MN 55125